

JULY

at the

CALIFORNIA ACADEMY OF SCIENCES

JULY MEETING

DATE: Wednesday evening, July 17
TIME: 8:00 p.m. (One Meeting Only)
PLACE: May Treat Morrison Auditorium
SPEAKER: Stennett S. Heaton
SUBJECT: "COLOR PHOTOMICROGRAPHS OF NATURE"

Mr. Heaton was presented first to the Academy membership in December 1963 and it was a rare and gratifying evening. Prior to that time, we had on display in Lovell White Hall a series of color enlargements made by him which caused understandable excitement.

His is a rare world, so unusual and so different it is difficult to describe. Painstakingly, through the lens of a microscope, his camera goes close then closer to his subject — be it a moth, a butterfly, a beetle, a lizard — and what is revealed is both glorious and breathtaking. Some of his magnifications are approximately 200 times natural size. By a unique method of using reflected rather than transmitted light, he gains effects and reveals hidden color that would otherwise remain a secret to most observers. Photographs are projected simultaneously on two screens — an exciting development in word-picture communication. Art is discovered where it is least expected.

Mr. Heaton has spent almost 30 years in the photomicrography of insects and small animals. His interest in this avocation (he is a licensed pest control inspector) began with his first second-hand microscope purchased in 1938. His photographs reflect his interest in the significance of the relationship of art to science.

As indicated, only one showing at 8:00 p.m. on a "first come first served" basis. Your 1968 member's card is your admission. In case of a capacity crowd, late-comers will be invited to see the current sky show in Morrison Planetarium at no charge.

MORRISON PLANETARIUM

July 4 through September 2: "FROM THE BRINK OF SPACE", the Theatre of the Stars' summer spectacular sky show. At the outermost reaches of our solar system the little planet Pluto circles endlessly — a cold, forbidding and unknown world. But what lies beyond? Is there any end? Take this trip to Pluto and a look outward from the very edge of space.

Performances daily at 2:00 and 3:30 p.m. with extra matinees, Saturday and Sunday, at 12:30. Evening shows, Wednesday through Sunday at 8:30. Admission: Adults, \$1.00. Children, servicemen, and students (with card), 50c.

MORRISON AUDITORIUM

"THE SEA OF CORTEZ", an hour-long documentary film in color, photographed in and around the Gulf of California by Academy scientists, is shown on Monday, Wednesday, Friday, Saturday and Sunday at 12:45, 2:15 and 3:45 p.m. Admission to these showings is the same as that for Morrison Planetarium (see above).

SPECIAL EXHIBITS

From the Academy Collections: "TWO ODDITIES FROM DOWN UNDER (Kiwi and duck-billed platypus)". Main Foyer, Science Museum. Continues through September.

"A WALK THROUGH THE REDWOODS", color enlargements of photographs made by Mr. Howard King, continues in Lovell White Hall of Man and Nature. These 75 pictures, each more beautiful than the last, were made in the major redwood parks which the Save-The-Redwoods League helped to establish. Closes September 30.

NEWS and NOTES

A PROGRAM OF FIELD PROJECTS involving small groups of advanced high school students is being inaugurated at the Academy, financial assistance, in part, forthcoming from the American Association for the Advancement of Science. These cooperative research adventures will be under the supervision of professional personnel from the Academy staff. For example, there is currently a plan for a group of students to participate in a two or

three week paleontological investigation in the Kettleman Hills of California. Members of the party will do the exploration and digging, develop the project with technical advice from Academy staff members, and possibly publish a report in the California Junior Academy of Sciences' "Student Discovery".

Through the generosity of Academy Trustee I. W. Hellman, a four-wheel drive "camper" has been purchased as transportation for the planned projects which may include a trip to the fossil area of Wyoming, and an investigation of the ecological problems on the sea coast and in the high mountains, as well as the aforementioned Kettleman Hills trip.

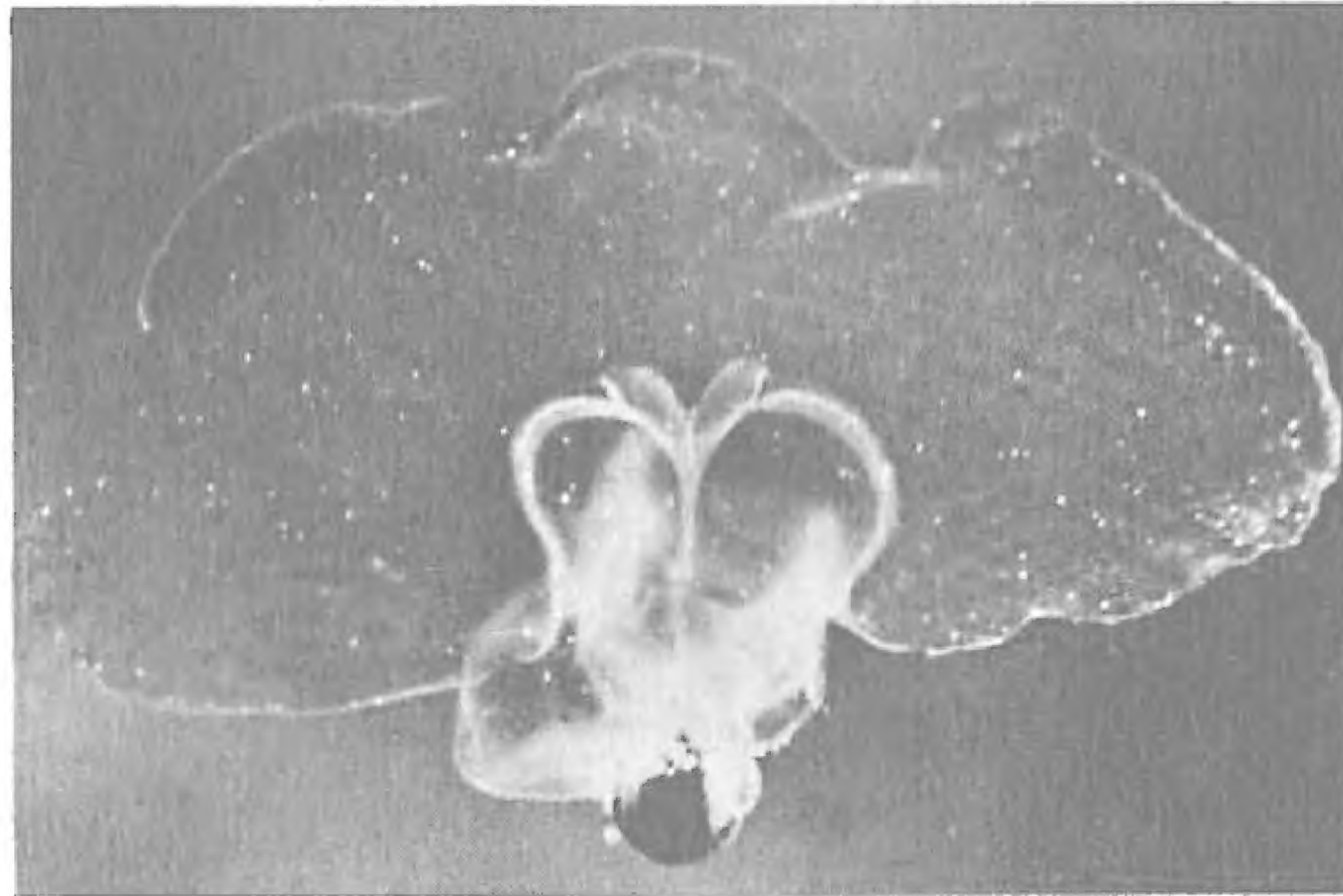
ANNOUNCEMENT HAS BEEN MADE of three Academy staff appointments. Dr. Paul H. Arnaud has been named Chairman of the Department of Entomology; Dr. William N. Eschmeyer as Acting Chairman of the Department of Ichthyology; and Dr. Victor A. Zullo as Chairman of the Department of Geology. The appointments will relieve the former Chairmen of the indicated departments from certain administrative duties, thus affording them more time for special research and investigations in the field.

SOMETHING NEW has been added in our North American Hall and the membership should take advantage of it at the earliest opportunity. The systematic collection in the Hall of Minerals has been completed. The arrangement starts with the native elements and concludes with the neosilicates, a total of 509 specimens in 11 groups and placed according to their chemical and physical characteristics. The bulk of the material in the handsome display is from the famous M. Vonsen Collection.

Adjacent is a small exhibit devoted to radioactivity which contains a Geiger counter and a piece of uranium ore (carnotite). Flashing lights and a sound system dramatize this particular phenomenon.

THE ACADEMY has been the recipient of a grant in the amount of \$19,000 from the National Science Foundation for research entitled "Distribution and Affinities of Scorpionids" which will be conducted under the direction of Stanley C. Williams, Department of Ecology and Systematic Biology, San Francisco State College. The grant was effective on May 1 and will continue for a period of approximately two years.

FROM THE ACADEMY COLLECTIONS



OF ALL THE MYRIAD FORMS OF ANIMALS that make up the ocean's zooplankton, few surpass the Pteropods in beauty of form and function. Often referred to as sea butterflies because of the winglike swimming organs and the erratic and fluttering manner of locomotion, they are in reality members of the invertebrate Phylum Mollusca, Class Gastropoda, that great group of organisms commonly referred to as snails and slugs. The Pteropods have lost nearly all resemblance to their more sedentary relatives. The lateral edges of the foot have become greatly expanded into the characteristic swimming organs that give rise to the latin name meaning "wing foot". The group, with few exceptions, are found in the upper layers of the open sea and are rarely encountered near the shore. The Pteropods are divided into two groups, the Thecosomata and the Gymnosomata — shelled and shell-less forms, respectfully.

In some areas, the deep-sea floor is covered with a sediment composed of the shells of deceased Pteropods. This Pteropod ooze constitutes one of the three major submarine sediments of organic origin. The lovely ghost-like individual in the figure above (enlarged x2) has no true shell in the adult stage; rather it is protected by an internal slipper-shaped, jelly-like pseudochonch (false shell). The animal in its habitat is so transparent that it is extremely difficult to see but even more surprising is the transparency of the detached pseudochonch which is completely invisible in sea water and in standard preserving fluids. This remarkable specimen of *Corolla vitrea* was photographed and collected by Mr. Don Wobber in the waters of Monterey Bay, California. The first specimen of *Corolla vitrea* was described from this area 67 years ago by Dr. Harold Heath of Stanford University.

DUSTIN D. CHIVERS

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Laurie Feldman	David Ucker
John Lilly	Kim Wilson
Dan Macrae	Micahel Wilson
	Dale Wong

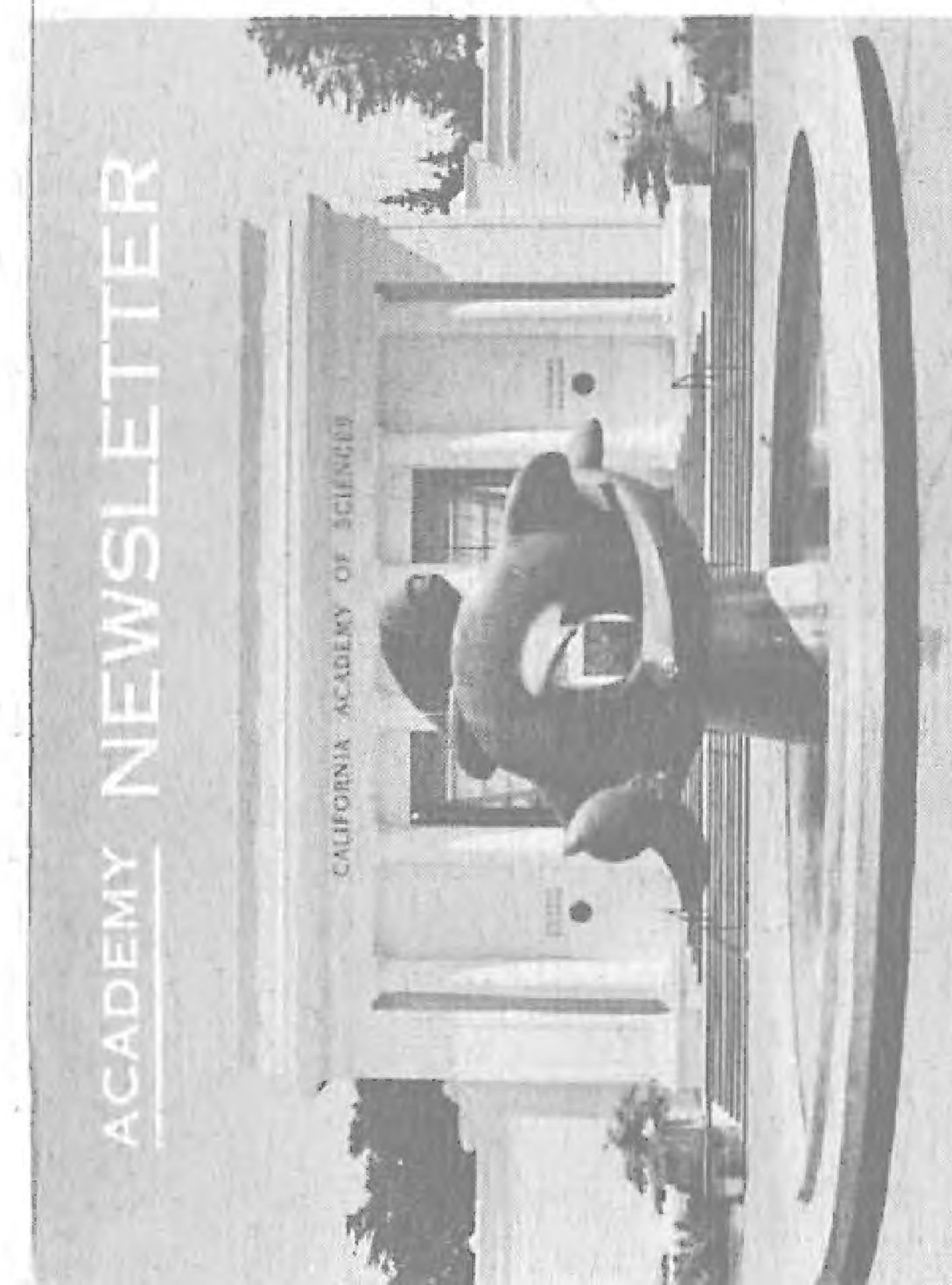
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